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22879 7590 04/03/2008 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400				
EXAMINER DICKER, DENNIS T				
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2625				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/655,775

Applicant(s)

JACOBSEN ET AL.

Examiner

DENNIS DICKER

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 11-18, 20-28, 30, 31 and 34-36 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-8, 11-18, 20-28, 30, 31 and 34-36 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 05 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-949)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see page 14 lines 4-13, filed 1/21/2008 with respect to the rejection(s) of claim(s) 1-23 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6, 8, 11, 12 14-18, 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kousuke (hereinafter "Kousuke" JP 09-001899) in view of Nishikawa (hereinafter "Nishikawa '968" 6,486,968) and further in view of Iwai et al (hereinafter "Iwai '301" 2002/0054301)

With respect to **Claim 1**, Kousuke teaches a printer display (i.e., **116 of Drawing 6, diode or display**) comprising a control system (i.e., **114 of Drawing 6, display and control section**) to monitor progress in processing a print job and a progress indicator (i.e., **Para 0010, flashing or display of page being printed**) to display progress information to indicate the progress in processing the print job (i.e., **Drawings 6A and 6B and Para 0010, display control section indicating progress of print job**)

Kousuke does not explicitly teach a progress indicator comprises a virtual page associated with a page of the print job and wherein the virtual page is illuminated strip by strip, as strips within the page of the print job are processed.

However, the mentioned claimed limitations are well known in the art as evidenced by Nishikawa '968 and further by Iwai '301, In particular, Nishikawa '968 teaches the use of a progress indicator comprises a virtual page associated with a page of the print job (i.e., **Figs. 3 and 8-16 and Col. 7 lines 60- Col. 5 lines 5, virtual page position and progress associated with a page of a print job**) and Iwai '301 teaches the use of a progress indicator illuminated strip by strip, as strips within the page of the print job are processed (i.e., **Para 0137, a progress indicator with "n" strips increasing as the job progresses**).

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the printer display of Kousuke as taught by Nishikawa '968 where Nishikawa '968 teaches a virtual page illuminating with progress of a print job and Iwai '301 where Iwai'301 teaches progress information illuminated strip by strip as strips of the print job are processed since Iwai '301 suggested in Para 0006 that such a modification would enabling parallel and simultaneous display of a plurality of preview images in different-scale views of an object image to print, such as a page image, an enlarged image, and a composite image consisting of object pages, for example, an entire view of a large poster. This manner of preview display enables the user to view the object image to print in different-scale views and foresee how the object is to be printed. Consequently, the user need not make a plurality of test prints, which

leads to saving resources such as paper and ink and reducing the time required for print work, in other words, increasing the efficiency of print work.

With respect to **Claim 2**, Kousuke does not explicitly teach progress information that the progress indicator displays includes a page number currently being processed.

However, the mentioned claimed limitations are well known in the art as evidenced by Nishikawa '968 . In particular, Nishikawa '968 teaches the use of progress indicator displays includes a page number currently being processed (i.e., Figure 10,).

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the printer display of Kousuke as taught by Nishikawa '968 since Nishikawa '968 suggested in Col. 1 lines 40-54 that such a modification would provide a more precise notification on the progress of the print job.

With respect to **Claim 3**, Kousuke teaches a display wherein the progress indicator additionally comprises a progress bar configured to move from zero to one hundred percent at a beginning and at an end of each page processed (i.e., **Para 0019 and Drawing 3, progress indicator additionally comprises a progress bar indicating progress of each page**).

With respect to **Claim 4**, Kousuke teaches a display wherein the progress indicator additionally comprises a progress bar configured to move from zero to one hundred percent at the beginning and at an end of the print job (i.e., **0033-0034, progress indicator additionally comprises a progress bar indicating progress of each job**).

With respect to **Claim 6**, Kousuke teaches a display wherein the control system is configured to monitor the progress by measuring processing time required for

completion of part of the print job (**i.e., Para 0018, control system monitors progress by measuring processing time**) and estimating remaining processing time for the print job (**i.e., Para 0034, control system indicates elapsed time thereby estimating remaining processing time for print job**).

With respect to **Claim 8**, Kousuke does not explicitly teach a progress indicator additionally comprises a virtual movie showing a printer processing a page of the print job from a time the printer initiates processing the page to a time when the printer completes processing the page.

However, the mentioned claimed limitations are well known in the art as evidenced by Narushima '571. In particular, Nishikawa '968 teaches the use of a progress indicator additionally comprises a virtual movie (**i.e., Fig. 3, animation program showing a virtual movie**) showing a printer processing a page of the print job (**i.e., Fig. 8-16, virtual movie shows a printer processing a page**) from a time the printer initiates processing the page to a time when the printer completes processing the page (**i.e., Col. 7 lines 36-38, virtual movie shows processing of print job from start to finish**).

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the printer display of Kousuke as taught by Nishikawa '968 since Nishikawa '968 suggested in Col. 1 lines 40-54 that such a modification would provide a more precise notification on the progress of the print job.

With respect to **Claim 11**, Kousuke teaches a display wherein the progress information comprises information of a current page being processed and information

on progress of the print job (i.e., **Para 0019, progress of every page and progress time of print job**)

With respect to **Claim 12**, Kousuke teaches a printer (i.e., **1 of Drawing 1, Page printer**), comprising: a print unit (i.e., **5 of Drawing 1 and Para 0016, Printout section**); a display panel (i.e., **8 of Drawing 1, Display output section**); a processor (i.e., **Drawing 7, Display and control section**) and associated memory (i.e., **2 of Drawing 1, Reception section**) operatively coupled to the print unit and the display panel (i.e., **Drawing 1, reception section coupled to print unit and display panel**) , wherein the processor is configured to direct the display panel to display progress information (i.e., **Para 0017, control section controls monitoring department which supervises display panel to display progress information**) indicative of progress of a print job from initiation to completion (i.e., **Para 0018, progress information indicates progress of beginning to end of print job**); and a progress indicator configured to display on the display panel a graphical representation showing processing progress of each page of a print job (i.e., **Para 0019, progress indicator shows progress of each page on a display panel**).

Kousuke does not explicitly teach progress indicator comprises a virtual page associated with a page of the print job and wherein the virtual page is illuminated strip by strip; as strips within the page of the print job are processed

However, the mentioned claimed limitations are well known in the art as evidenced by Nishikawa '968 and further by Iwai '301, In particular, Nishikawa '968 teaches the use of progress indicator comprises a virtual page associated with a page

of the print job (i.e., **Figs. 3 and 8-16 and Col. 7 lines 60- Col. 5 lines 5, virtual page position and progress associated with a page of a print job**) and Iwai '301 teaches the use of a progress indicator illuminated strip by strip, as strips within the page of the print job are processed (i.e., **Para 0137, a progress indicator with "n" strips increasing as the job progresses**).

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the printer of Kousuke as taught by Nishikawa '968 where Nishikawa '968 teaches a virtual page illuminating with progress of a print job and Iwai '301 where Iwai'301 teaches progress information illuminated strip by strip as strips of the print job are processed since Iwai '301 suggested in Para 0006 that such a modification would enabling parallel and simultaneous display of a plurality of preview images in different-scale views of an object image to print, such as a page image, an enlarged image, and a composite image consisting of object pages, for example, an entire view of a large poster. This manner of preview display enables the user to view the object image to print in different-scale views and foresee how the object is to be printed. Consequently, the user need not make a plurality of test prints, which leads to saving resources such as paper and ink and reducing the time required for print work, in other words, increasing the efficiency of print work.

With respect to **Claim 14**, Kousuke teaches a printer where a control system (i.e., **Para 0021, Monitoring Department**) is configured to monitor time passage from a time the printer initiates processing: one or more images to a time when the printer

completes processing the one or more images (i.e., **Para 0021, Monitoring department monitors time passage for images processed for printing**).

With respect to **Claim 15**, Kousuke teaches a control system further configured to monitor a time the printer initiates processing a strip (i.e., **Para 0020, monitoring of time the printer initiates a page**) and a time the printer completes processing the strip (i.e., **Para 0032, Monitoring time printer completes processing**).

With respect to **Claim 16**, Kousuke teaches a printer wherein the control system is further configured to monitor a time the printer initiates processing a page and a time the printer completes processing the page (i.e., **Para 0018, monitoring of time of a page**).

With respect to **Claim 17**, Kousuke teaches a printer additionally comprising: a progress indicator (i.e., **116 of Drawing 6, diode or display**) configured to display on the display panel a graphical representation showing processing progress of the print job in its entirety (i.e., **Drawing 2 and 3, Graphical representation of processing progress on a display**).

With respect to **Claim 18**, Kousuke teaches a printer progress display system (i.e., **Drawing 2, printer progress display system**), comprising: a display panel (i.e., **8 of Drawing 1, Display output section**); a control system (i.e., **114 of Drawing 6, display and control section**) configured to track progress of printable images as the printable images are processed (i.e., **Para 0013, progress is tracked of printable images**); and a progress indicator configured to display a graphical representation of

the progress on the display panel (i.e., **Para 0013 and Drawing 3, graphical representation of progress**).

Kousuke does not explicitly teach a progress indicator comprises a virtual page associated with a page of the print job and wherein the virtual page is illuminated strip by strip, as strips within the page of the print job are processed.

However, the mentioned claimed limitations are well known in the art as evidenced by Nishikawa '968 and further by Iwai '301, In particular, Nishikawa '968 teaches the use of a progress indicator comprises a virtual page associated with a page of the print job (i.e., **Figs. 3 and 8-16 and Col. 7 lines 60- Col. 5 lines 5, virtual page position and progress associated with a page of a print job**) and Iwai '301 teaches the use of a progress indicator illuminated strip by strip, as strips within the page of the print job are processed (i.e., **Para 0137, a progress indicator with "n" strips increasing as the job progresses**).

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the printer progress display system of Kousuke as taught by Nishikawa '968 where Nishikawa '968 teaches a virtual page illuminating with progress of a print job and Iwai '301 where Iwai'301 teaches progress information illuminated strip by strip as strips of the print job are processed since Iwai '301 suggested in Para 0006 that such a modification would enabling parallel and simultaneous display of a plurality of preview images in different-scale views of an object image to print, such as a page image, an enlarged image, and a composite image consisting of object pages, for example, an entire view of a large poster. This

manner of preview display enables the user to view the object image to print in different-scale views and foresee how the object is to be printed. Consequently, the user need not make a plurality of test prints, which leads to saving resources such as paper and ink and reducing the time required for print work, in other words, increasing the efficiency of print work.

With regards to method **Claim 20**, the limitation of the claim 20 is corrected by limitation of claim 2 above. The steps of claim 20 read into the function step of claim 2.

With regards to method **Claim 21**, the limitation of the claim 21 is corrected by limitation of claim 3 above. The steps of claim 21 read into the function step of claim 3.

With respect to **Claim 22**, Kousuke does not explicitly teach a virtual movie configured to show a printer processing a page of a printer job from a time the printer initiates processing the page to a time the printer completes processing the page.

However, the mentioned claimed limitations are well known in the art as evidenced by Nishikawa '968. In particular, Nishikawa '968 teaches the use of a virtual movie (**i.e., Fig. 3, Virtual Movie**) configured to show a printer processing a page of a printer job from a time the printer initiates processing the page to a time the printer completes processing the page (**i.e., Fig. 8-16, print processing of a print job is shown from initiation to completion**).

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the printer display of Kousuke as taught by Nishikawa '968 since Nishikawa '968 suggested in Col. 1 lines 40-54 that such a modification would provide a more precise notification on the progress of the print job.

4. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kousuke in view of Nishikawa '968 and further in view of Iwai '301 as applied to Claim 1 and further in view of McCormick et al (hereinafter "McCormick '411" 5,706,411).

With respect to **Claim 5**, Kousuke does not explicitly teach a control system configuring to monitor the progress by monitoring memory initially required for the print job ad memory currently required for the print job.

However, the mentioned claimed limitations are well known in the art as evidenced by McCormick '411. In particular, McCormick '411 teaches the use of a control system configured to monitor the progress by monitoring memory initially required for the print job (i.e., **Col. 5 lines 27-36, state indicator displays memory state**) and memory currently required for the print job (i.e., **Fig. 6 and Col. 5 lines 54-59, state indicator will indicate if memory is low and alert user current memory level for the print job**).

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the system of Kousuke as taught by Nishikawa '968, Iwai '301 and McCormick '411 since McCormick '411 suggested in Col. 1 lines 34-38 that such a modification would provide a user friendly system having a visual display which provides the user as status of an attached printer.

With respect to **Claim 7**, Kousuke does not explicitly teach a progress indicator configured to indicate estimate remaining processing time in mm:ss notation.

However, the mentioned claimed limitations are well known in the art as evidenced by McCormick '411. In particular, McCormick '411 teaches the use of a

progress indicator configured to indicate estimate remaining processing time in mm:ss notation (i.e., **Fig. 5; Fig. 19 and Col. 10 lines 34-39, progress indicator indicates estimate remaining time of the international standard format in mm:ss**).

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the system of Kousuke as taught by Nishikawa '968, Iwai '301 and McCormick '411 since McCormick '411 suggested in Col. 1 lines 34-38 that such a modification would provide a user friendly system having a visual display which provides the user as status of an attached printer.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kousuke in view of Nishikawa '968 and further in view of Iwai '301 as applied to Claim 12 and further in view of McCormick et al (hereinafter "McCormick '411" 5,706,411).

With respect to **Claim 13**, wherein the processor is configured to generate the progress information using a technique selected from a group of techniques (i.e., **Para 0038-0040, progress information technique**) and estimating processing times to predict remaining time for the print job (i.e., **Para 0040-0048, estimating processing times**).

Kousuke does not explicitly teach determining a number of strips processed in view of a number of strips to be processed or monitoring memory use to determine the progress information;

However, the mentioned claimed limitations are well known in the art as evidenced by Iwai '301 and McCormick '411, In particular, Iwai '301 teaches the use of determining a number of strips processed in view of a number of strips to be processed

(i.e., **Para 0136, determination of a number of strips**) and McCormick '411 teaches monitoring memory use to determine the progress information (i.e., **Col. 5 lines 54-59, state indicator monitors memory for progress information [Fig. 6]**).

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the printer of Kousuke as taught by Nishikawa '968, Iwai '301 and McCormick '411 since McCormick '411 suggested in Col. 1 lines 34-38 that such a modification would provide a user friendly printer system having a visual display which provides the user as status of an attached printer.

6. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kousuke in view of Nishikawa '968 and further in view of Iwai '301 as applied to Claim 18 and further in view of Ohara (hereinafter "Ohara '957" 2003/0234957).

With respect to **Claim 23**, Kousuke does not explicitly teach a progress indicator comprising a thumbnail image located within the display panel.

However, the mentioned claimed limitations are well known in the art as evidenced by Ohara '957, In particular, Ohara '957 teaches the use of a progress indicator comprising a thumbnail image located within the display panel (i.e., **Para 0064-0066, progress indicator comprising a thumbnail image**).

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the printer progress display system of Kousuke, Nishikawa '968 and Iwai '301 as taught by Ohara '957 since Ohara '957 suggested in Para 0007 that such a modification would provide a system where a user can immediately confirm progress of a printing operation by contents and page number.

7. Claims 24-28, 30, 31, 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishikawa '968 and further in view of Kousuke, Iwai '301 and further in view of Kawade (hereinafter "Kawade '664" 7,304,664).

With respect to **Claim 24**, Nishikawa '968 teaches a method of printer progress display (i.e., **Col 7 lines 33-36, print progress display**), comprising: and displaying a graphical representation showing progress of the processing (i.e., **Col 7 line 36-38, graphic representation of progress**) and displaying a virtual page associated with a page of the print job and illuminating the virtual page. Nishikawa '968 also teaches the use of a progress indicator comprises a virtual page associated with a page of the print job (i.e., **Figs. 3 and 8-16 and Col. 7 lines 60- Col. 5 lines 5, virtual page position and progress associated with a page of a print job**).

Nishikawa '968 does not explicitly teach monitoring processing of strips on a page, illuminating the virtual page, strip by strip, as strips within the page within the print job are processed, wherein each strip shows what a portion of the page will look like in much reduced detail and resolution; erasing the virtual page upon completion of printing the page; and repeating the displaying of a virtual page comprising strips of reduced detail and resolution of any subsequent pages in a print job.

However, the mentioned claimed limitations are well known in the art as evidenced by Iwai '301 and Kawade '664, In particular, Iwai '301 teaches the use of monitoring processing of strips on a page (i.e., **Para 0136 , processed strips are monitored**), showing progress of the processing of the strips on the page (i.e., **Fig. 20, Progress of strips are displayed**), and Iwai '301 also teaches the use of a progress

indicator illuminated strip by strip, as strips within the page of the print job are processed (i.e., **Para 0137, a progress indicator with “n” strips increasing as the job progresses**) and Kawade '664 teaches the use of a method wherein each strip shows what a portion of the page will look like in much reduced detail and resolution (i.e., **Fig. 3, strips of portion of image being processed**); erasing the virtual page upon completion of printing the page (i.e., **Col. 3 lines 24-34, virtual page is erased upon completion to display next page progress**); and repeating the displaying of a virtual page comprising strips of reduced detail and resolution of any subsequent pages in a print job (i.e., **Fig. 2 , virtual pages are repeatedly displayed of a print job**).

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the printer display of Nishikawa '968 as taught by Iwai '301 and Kawade '664 where Iwai '301 teaches a progress information illuminated strip by strip as strips of the print job are processed since Iwai '301 suggested in Para 0006 that such a modification would enabling parallel and simultaneous display of a plurality of preview images in different-scale views of an object image to print, such as a page image, an enlarged image, and a composite image consisting of object pages, for example, an entire view of a large poster. This manner of preview display enables the user to view the object image to print in different-scale views and foresee how the object is to be printed. Consequently, the user need not make a plurality of test prints, which leads to saving resources such as paper and ink and reducing the time required for print work, in other words, increasing the

efficiency of print work and Kawade '664 suggested in Col. 1 lines 41-44 that such a modification would provide an effective printing progress display for a printer.

With regards to method **Claim 25**, the limitation of the claim 25 is corrected by limitation of claim 3 above. The steps of claim 25 read into the function step of claim 3.

With regards to method **Claim 26**, the limitation of the claim 26 is corrected by limitation of claim 8 above. The steps of claim 26 read into the function step of claim 8.

With regards to method **Claim 27**, the limitation of the claim 27 is corrected by limitation of claim 23 above. The steps of claim 27 read into the function step of claim 23.

With respect to **Claim 28**, Nishikawa '968 teaches a processor-readable medium comprising processor executable instructions (**i.e., Col. 9 lines 13-26, processor readable medium storing executable methods**) for: obtaining data on a degree to which progress has been made on a print job and displaying on a progress indicator (**i.e., Col 7 lines 33-36, obtained data on progress is displayed**), a graphical representation indicative of the progress made on the print job (**i.e., Col 7 line 36-38, graphic representation of progress**), displaying a virtual page associated with a page of the print job and illuminating the virtual page (**i.e., Figs. 3 and 8-16 and Col. 7 lines 60- Col. 5 lines 5, virtual page position and progress associated with a page of a print job**).

Nishikawa '968 does not explicitly teach monitoring processing of strips on a page, illuminating the virtual page, strip by strip, as strips within the page within the print job are processed, wherein each strip shows what a portion of the page will look like in

much reduced detail and resolution; erasing the virtual page upon completion of printing the page; and repeating the displaying of a virtual page comprising strips of reduced detail and resolution of any subsequent pages in a print job.

However, the mentioned claimed limitations are well known in the art as evidenced by Iwai '301 and Kawade '664. In particular, Iwai '301 teaches the use of monitoring processing of strips on a page (**i.e., Para 0136 , processed strips are monitored**), showing progress of the processing of the strips on the page (**i.e., Fig. 20, Progress of strips are displayed**), and Iwai '301 also teaches the use of a progress indicator illuminated strip by strip, as strips within the page of the print job are processed (**i.e., Para 0137, a progress indicator with “n” strips increasing as the job progresses**) and Kawade '664 teaches the use of a method wherein each strip shows what a portion of the page will look like in much reduced detail and resolution (**i.e., Fig. 3, strips of portion of image being processed**); erasing the virtual page upon completion of printing the page (**i.e., Col. 3 lines 24-34, virtual page is erased upon completion to display next page progress**); and repeating the displaying of a virtual page comprising strips of reduced detail and resolution of any subsequent pages in a print job (**i.e., Fig. 2 , virtual pages are repeatedly displayed of a print job**).

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the processor-readable medium of Nishikawa '968 as taught by Iwai '301 and Kawade '664 where Iwai '301 teaches a progress information illuminated strip by strip as strips of the print job are processed since Iwai '301 suggested in Para 0006 that such a modification would enabling parallel

and simultaneous display of a plurality of preview images in different-scale views of an object image to print, such as a page image, an enlarged image, and a composite image consisting of object pages, for example, an entire view of a large poster. This manner of preview display enables the user to view the object image to print in different-scale views and foresee how the object is to be printed. Consequently, the user need not make a plurality of test prints, which leads to saving resources such as paper and ink and reducing the time required for print work, in other words, increasing the efficiency of print work and Kawade '664 suggested in Col. 1 lines 41-44 that such a modification would provide an effective printing progress display for a printer.

With respect to **Claim 30**, Nishikawa '968 teaches a processor-readable medium comprising processor executable instructions (**i.e., Col. 9 lines 13-26, processor readable medium storing executable methods**) for: displaying a virtual movie showing a printer process a page of a print job from a time the printer initiates processing the page to a time the printer completes processing the page associated with a page of the print job and illuminating the virtual page (**i.e., Figs. 3 and 8-16 and Col. 7 lines 60- Col. 5 lines 5, virtual page position and progress associated with a page of a print job**).

Nishikawa '968 does not explicitly teach monitoring processing of strips on a page; and displaying a graphical representation showing progress of the processing of the strips on the page and wherein the graphical representation comprises a thumbnail image of the page; and incrementally updating the thumbnail image, as the page is processed, wherein the updating comprises illuminating strips as strips within the page

within the print job are processed, wherein each illuminated strip shows what a portion of the page will look like in much reduced detail and resolution.

However, the mentioned claimed limitations are well known in the art as evidenced by Iwai '301 and Kawade '664, In particular, Iwai '301 teaches the use of monitoring processing of strips on a page(**i.e., Para 0136 , processed strips are monitored**); and displaying a graphical representation showing progress of the processing of the strips on the page (**i.e., Fig. 20, Progress of strips are graphically displayed**) and Kawade '664 teaches a graphical representation comprises a thumbnail image of the page (**i.e., Col. 5 lines 17-18, thumbnail image**); and incrementally updating the thumbnail image as the page is processed(**i.e., Fig. 3, Thumbnail image is incrementally updated as the page is processed**), wherein the updating comprises illuminating strips as strips within the page within the print job are processed (**i.e., Fig. 3, strips are illuminated as the print job is processed**), wherein each illuminated strip shows what a portion of the page will look like in much reduced detail and resolution (**i.e., Fig. 3 and Col. 3 lines 48-56 ,a portion of the page is illuminated**).

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the processor-readable medium of Nishikawa '968 as taught by Iwai '301 and Kawade '664 where Iwai '301 teaches a progress information illuminated strip by strip as strips of the print job are processed since Iwai '301 suggested in Para 0006 that such a modification would enabling parallel and simultaneous display of a plurality of preview images in different-scale views of an

object image to print, such as a page image, an enlarged image, and a composite image consisting of object pages, for example, an entire view of a large poster. This manner of preview display enables the user to view the object image to print in different-scale views and foresee how the object is to be printed. Consequently, the user need not make a plurality of test prints, which leads to saving resources such as paper and ink and reducing the time required for print work, in other words, increasing the efficiency of print work and Kawade '664 suggested in Col. 1 lines 41-44 that such a modification would provide an effective printing progress display for a printer.

With regards to method **Claim 31**, the limitation of the claim 33 is corrected by limitation of claim 3 above. The steps of claim 31 read into the function step of claim 3.

With regards to method **Claim 34**, the limitation of the claim 34 is corrected by limitation of claim 30 above. The steps of claim 34 read into the function step of claim 30.

With regards to method **Claim 35**, the limitation of the claim 35 is corrected by limitation of claim 2 above. The steps of claim 35 read into the function step of claim 2.

With regards to method **Claim 36**, the limitation of the claim 36 is corrected by limitation of claim 3 above. The steps of claim 36 read into the function step of claim 3.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS DICKER whose telephone number is (571)270-

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3140. The examiner can normally be reached on Monday -Friday 7:30 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb can be reached on (571) 272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/D. D./
Examiner, Art Unit 2625
4/1/2008

/Gabriel I Garcia/
Acting SPE of Art Unit 2625